

ABSTRACT OF THE DISCLOSURE

A high-speed WPAN (Wireless Personal Area Network) system for enabling communication between piconets is configured by at least one first device located in the child piconet. A C-PNC (Child Piconet Coordinator) device includes a C-MIB (Child Piconet Management Information Base) stores mapping information associated with devices located in the child piconet and a P-MIB (Parent Piconet Management Information Base) stores mapping information associated with devices located in a parent piconet. At least one second device is located in the parent piconet. The first device includes a C-MIB and a first B-MIB (Bridging Management Information Base), detects destination information of data using the mapping information stored in the first B-MIB to transmit data to a device located in the parent piconet, and transmits the data containing the detected information to the C-PNC device. The C-PNC device broadcasts the mapping information stored in the C-MIB and P-MIB to different piconets, and switches and transmits the data from the first device to the parent piconet. The second device includes a P-MIB and a second B-MIB, and receives the data from the C-PNC device.